innovation-futures.org

A Foresight Exercise on Emerging Patterns of Innovation
Visions, Scenarios and implications for Policy and Practice

iNfU

SEVENTH FRAMEWORK PROGRAMME

SSH Part 8

Innovation Futures: How Emerging Innovation Patterns Change the European Innovation Landscape

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EFP Workshop:

Policy Options for Surprising and Emerging Futures in Europe

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AIT AUSTRIAN INSTITUTE OF TECHNOLOGY   z punkt The Foresight Company   STRATEGIC DESIGN SCENARIOS SDS   Fraunhofer ISI

Research Question of the INFU Project: How will innovation be organised in the future?

- We are interested in the question on how the process of the creation, development and introduction of innovation is changing, i.e. we are dealing with "innovation patterns" or new forms of innovation …

- Little systematic exploration of new innovation models and visions and their implications for the innovation landscape, economy and society.

- With "new innovation patterns" we mean novel emerging concepts, ideas and strategies how innovation is organised but also well-known trends, which are of importance so far only in specific industries or areas but may have a larger impact on or potential for other areas in the future.

- Project approach: INFU is a foresight process combining the elements weak signal scanning, development of visions, scenario construction and scenario assessment ;
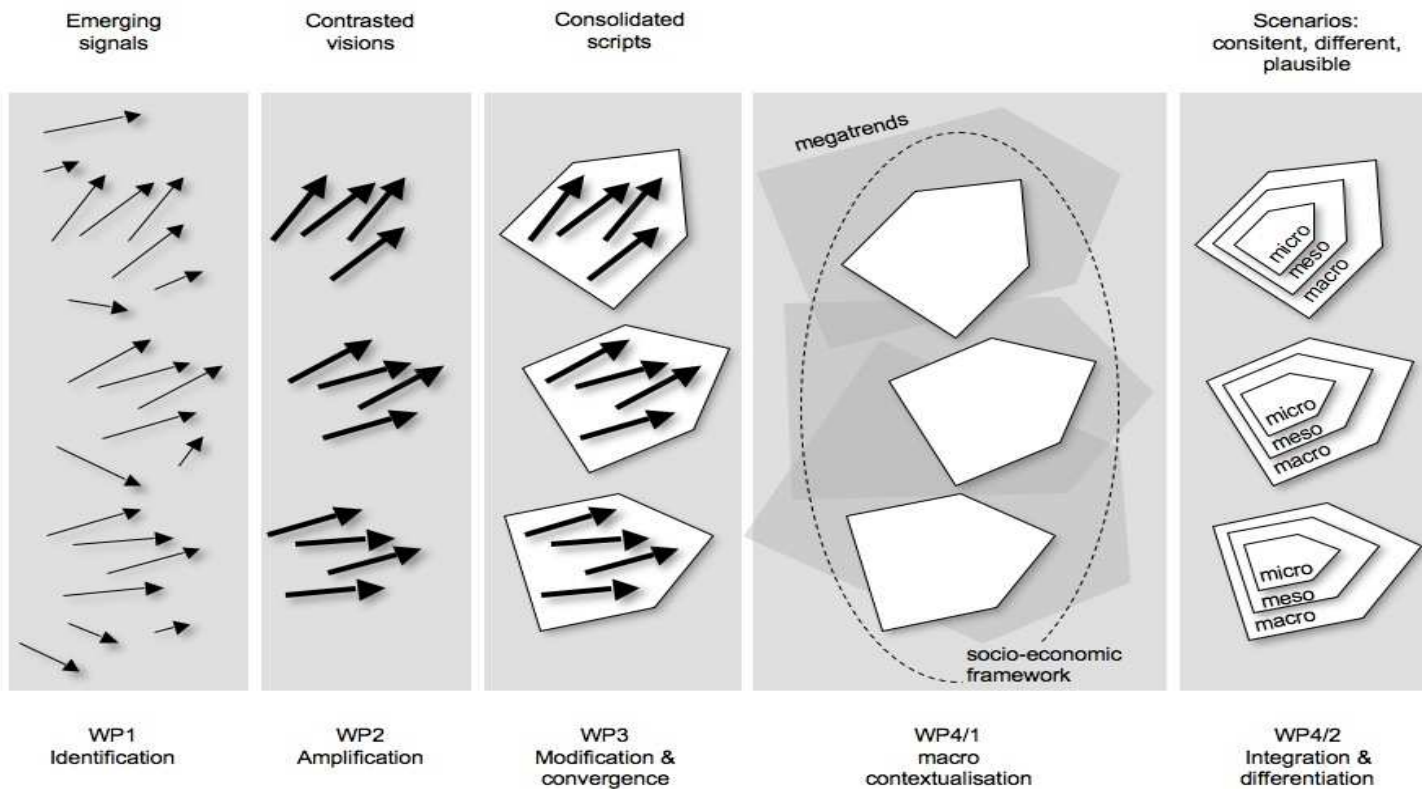
INFU Methodology
From Weak Signals to Scenarios

Oct. 2009   Nov. 2010   March 2011

Emerging signals	Contrasted visions	Consolidated scripts		Scenarios: consistent, different, plausible
			megatrends	
			socio-economic framework	micro meso macro
WP1 Identification	WP2 Amplification	WP3 Modification & convergence	WP4/1 macro contextualisation	WP4/2 Integration & differentiation

New innovation patterns: Academic literature

Emerging signals

WP1 Identification

- Open Innovation (Chesbrough)
- User Innovation (von Hippel)
- Virtual Customer Methods (Dahan & Hauser)
- Innovation communities (Tuomi)
- Commons-based Peer-Production (Benkler, Herstatt & Raasch)
- Crowdsourcing (Howe, Brabham)
- Personal Fabrication (Gershenfeld)
- Soft Innovation (Stoneman)
- Design Innovation (Verganti)
- User Created Content (OECD)
- Value innovation (Kim and Malbourgne)
- Eco-Innovation Models (Stahel, Braungarth & Lovins)
- Service Innovation Patterns (Miles)
- Innovation in the Public Sector (Windrum & Koch)
- Social Innovation (Young)

Scanning weak signals

Creative Commons
copy me
remix me

ISEU / Designing energy saving practices

In-NO-vation

Innovation network corporation
INCJ
iti

Top-Secret Innovation

High Transparency at Dell Idea Storm
IDEASTO

Reduced Security Control to Push Innovation

Google / Institutionalising the Free Creativity
Google

Fashion Blogs / Diffused creativity

Boom in Crowd Sourcing

whole brain

Scientific Open Online Platforms for Widening Researchers Communities

Career and Community Site for Creative Professionals

BILDR / Building Modular Know-How

Design Council RED - Open Health

NETFLIX
High Prized Open Innovation Competition

Fab Labs / Fabrication Laboratories for Everyone

TATA

TATA / Innovation Part of Corporate Culture

Demand for More Open Patent System

Sample Lab / Tryvertising

Reverse Innovation

Re-Design

Real-Time Social Search

Treadless / Typetees

Crowdsourcing at the White House

ARDUINO / Open Hardware

24h innovation marathon

Rapid Innovation Testing

Demand and Supply Driven Innovation Policy

American Apparel / Insourcing

CoWorking houses as creative hubs

Legalise LA

Creative Communities for Sustainable Lifestyles

Immersion in Public Institutions to Stimulate Innovation

Save our Energy

Systems of Living for the Cité du Design

Fusion of Product and Service Innovations

Product Piracy Cases

Software Support Tool for Product Innovation

Virtual Innovation

Design Thinking in MBA Programs

Designed Randomness

MINATEC / L'atelier Arts & Science

Bar Camps

Future Concept Lab

Conifer / Ethnographic Research Approaches in Design

Social Innovation in Uganda

PONOKO / Everybody designs

territoires en résidences

Fully Sponsored Innovation Camp for Young People

SPEC YOU!
The Rise of Spec-Design Sites

Biotech boom in china

No-Innovation as a Design Guideline

MIND LAB

User Innovation Knowledge.

OScar
The Open Source Car

LEGO Digital Designer

Cradle to Cradle

Global Ideas Bank

VICINI VICINI
Activating the Neighbourhood

IVC
Israeli Model / Governmental Supported Start-ups

Boom in crowd sourcing

Enabling Cards

Edison / Match-Making for Innovators and Companies

Low Cost Car from India

Sprout

E-Courses for Becoming E-Mentors

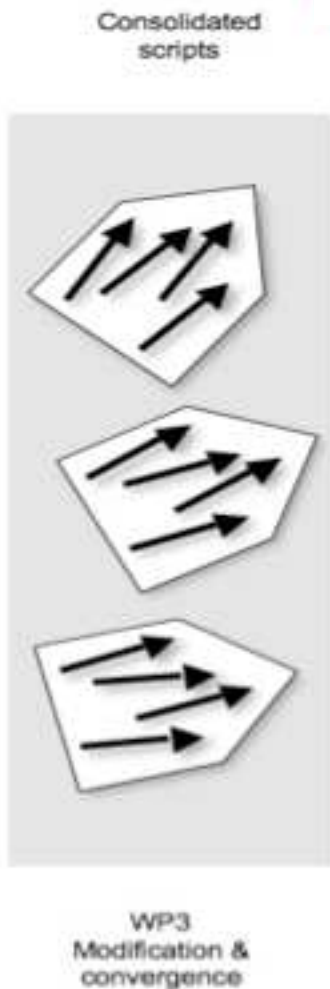DOTT / Design to Support Social Change

SLIDE 5

5 Emerging Signals on Innovation and Innovation Processes (1)

- **No Innovation:** Cherishing traditional values like honesty, trustworthiness, security, ecological awareness; evergreens; response to growing mistrust of consumers in innovation

- **Contests & Competition:** several new solution compete in a contest to be voted on (online) by customers (democratization, client needs)

- **Innovation Camps/Bar Camps:** interaction between large numbers of participants real and virtual, participatory, supported by social computing tools

5 Emerging Signals on Innovation and Innovation Processes (2)

- **Reverse Innovation:** Western companies make use of cheap R&D and low-cost manufacturing in emerging and developing regions; start innovation locally for domestic market, followed by introduction on western home markets (India, China)

- **Top Secret Innovation:** artificial hype about a brand; users become followers and identify with the brand; storytelling part of product innovation (Apple)

From innovation visions to consolidated visions

Consolidated scripts

WP3
Modification &
convergence

- Evaluation of 19 visions in an online survey (60 participants) according to clarity, newness, impact, desirability, likelihood
- Discussed in detail with 20 experts from industry & academia

Clustering & Selection

Outcome: 8 consolidated visions were identified. These visions were elaborated in Mini-Panels across Europe by self-organised expert groups (= an innovation experiment)
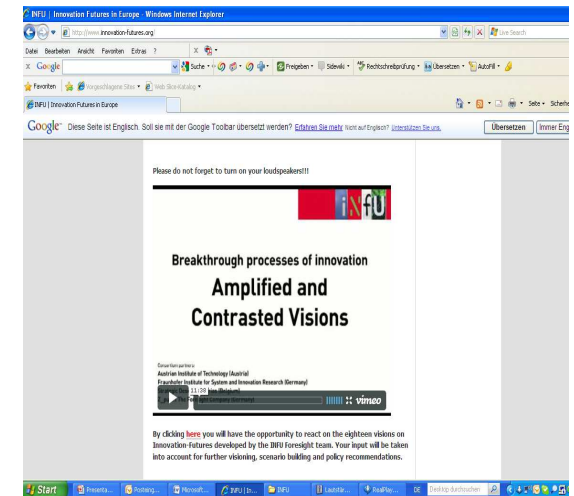
Findings of the Panels

- Several visions are incorporating fundamental changes in the **mechanisms mediating between innovation demand and innovation supply**. In most cases, the role of companies as dominant brokers between needs and solutions is seen to be shrinking and more direct involvement of individual or (more often) collective innovation users is described. A wide variety of **hybrid value creation business models** is being proposed.

- The issue of defining adequate **enabling platforms** between innovation demand and innovation supply and the adequate level for establishing these innovation support infrastructures is addressed in several visions (e.g. Fab-Labs, 3D printing facilities).

- Most visions emphasise the need to **address societal challenges and ,in particular, environmental issues** as a key driver of change not only for the target of innovation but also for innovation patterns.

- Some visions describe **fundamental changes in the macroeconomic environment** such as "economy of contributions", "on demand economy", "surplus ecosystem" "learning intensive economy".
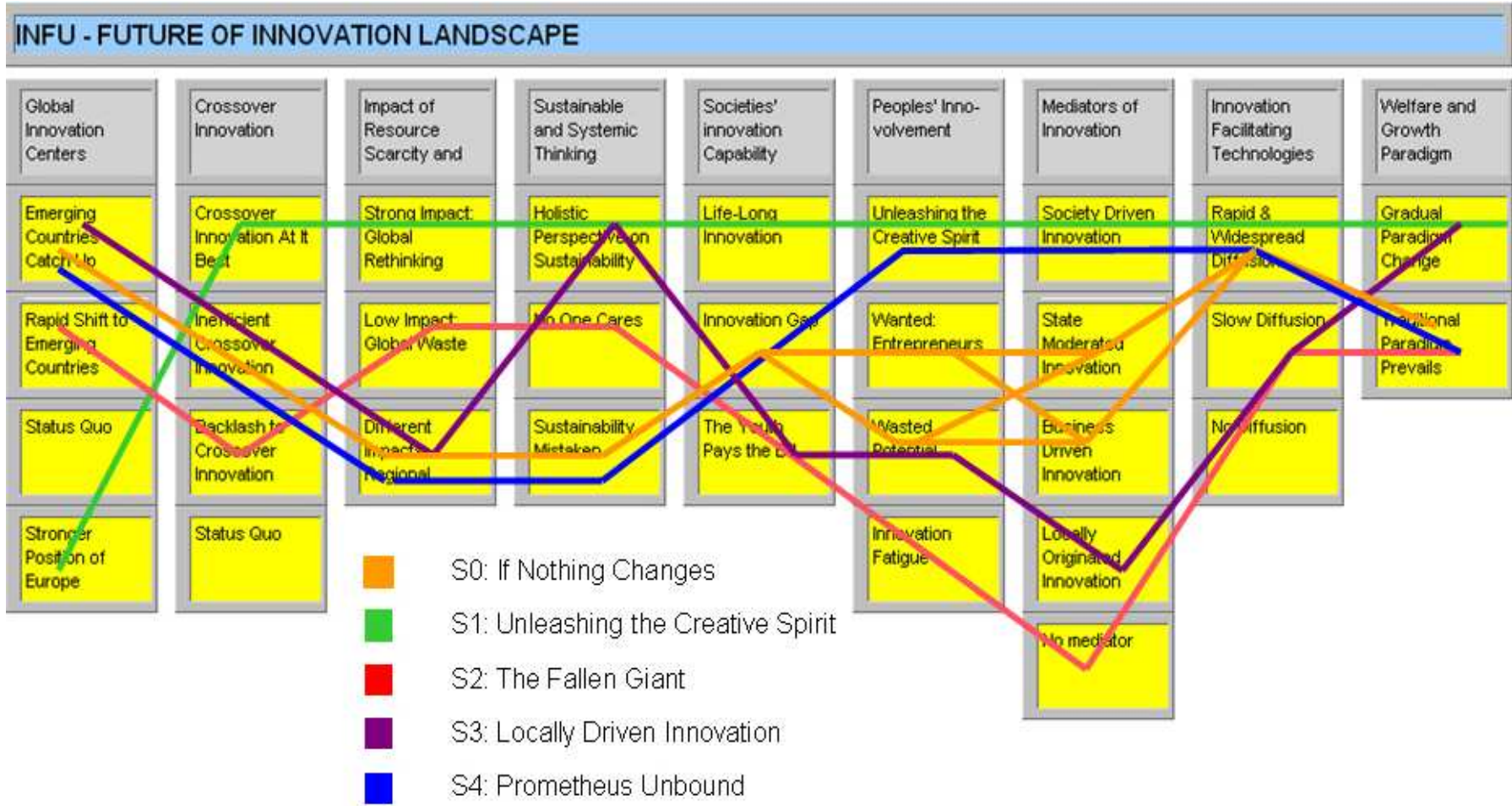
More Information

For more information, publications
and a trailer of the innovation visions, see:

www.innovation-futures.org

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Scenario Building

Conclusions

- Methodology:
    - The bottom-up approach by identifying signals was considered as very valuable by many experts, but, still difficult to go beyond today's notion of innovation
    - Visions were easy to grasp because of visualisation.
    - High interest in the project and high response rate for the were achieved because of the inspiring images.
- Outlook
    - The findings provide useful insight for innovation strategies directed at structural transformation for addressing the Grand Challenges.